

What is claimed is:

1        1.        An apparatus adapted to perform a method for recording and  
2 reproducing a digital signal in a track on a recording medium for reproduction at  
3 normal and trick play speeds, said method comprising the steps of:

4                a) processing said digital signal to form first and second record  
5 signals;

6                b) recording said first record signal in a first part of said track,

7                c) recording said second record signal in a second part of said track  
8 smaller than and separate from said first part of said track; and,

9                d) reproducing said first and second record signals from said first  
10 and second parts of said track.

1                2.        The apparatus of claim 1, further comprises a step of:

2                e) decoding said second record signal for display during operation at  
3 a trick play speed..

1                3.        The apparatus of claim 1, further comprises a step of:

2                f) decoding said second record signal for display during operation at  
3 a trick play speed..

1                4.        The apparatus of claim 1, wherein said step a) further comprises a  
2 step of:

3                processing an MPEG encoded signal to form said first record signal  
4 for reproduction at normal speed and said second record signal for reproduction  
5 at said trick play speed.

1                5.        The apparatus of claim 1, further comprising the step of:

2                processing said digital representative signal to form a trick play  
3 signal for recording as said second record signal.

1                6.        The apparatus of claim 1, further comprising the step of:

2                processing said digital representative signal to form a replay speed  
3 specific trick play signal for recording.

1                7.        The apparatus of claim 1, further comprising the step of:

2                multiplexing said first and second record signals to form a signal for  
3 recording in said first part of said helically scanned track.

625612US

1 8. An apparatus adapted to perform a method for recording and  
2 reproducing an MPEG encoded signal in track on a recording medium for  
3 reproduction at normal and trick play speeds, said method comprising the steps  
4 of:

5 a) processing said MPEG encoded signal to form first and second  
6 record signals;

7 b) multiplexing said first and second record signals to form a signal  
8 for recording in a first part of said track; and,

9 c) recording at least one of a speed specific trick play signal and an  
10 ATV signal in a second part of said track separate from said first part of said  
11 track.

1 9. The apparatus of claim 8, further comprises a step of:  
2 reproducing said recorded signals from said first part of said track,  
3 said first record signal for use at normal play speed and said second record signal  
4 for use at trick play speed .

1 10. The apparatus of claim 8, further comprises a step of:  
2 reproducing said recorded signals from said second part of said  
3 track, said speed specific trick play speed for trick play operation and said ATV  
4 signal for ATV signal display.

1 11. The apparatus of claim 8, wherein signals recorded in said first part  
2 of said track represent one of an MPEG signal and a digitally encoded video  
3 signal.

1 12. The apparatus of claim 8, wherein signals recorded in said second  
2 part of said track represent one of a trick play signal and a digitally encoded  
3 audio signal.